ABSTRACT

The open and closed metal vessel 1a, 1b, 1c, 1d serving to hold hot and to melt metals and to transport said liquid metals comprises an open and closed cavity 11 which is subtended by thermally insulating materials 3, 3a, 3b, 3c, 3e, 3f and which is seamlessly lined by an integral, exchangeable, single-layer or stratified textile, 3D-surface structure 4. Said metal vessel receives the liquid and solid metal to hold it hot or to melt it and also serves to transport the liquid metals. The heating to hold hot and to melt the metals is implemented by heater elements 6, 7 situated in the liquid metal and furthermore by heater elements 8 configured underneath the 3D-surface structure, or by induction. (9, 10). The closed metal vessel 1b is equipped with an integral, displaceable furnace riser pipe 20 on the furnace cover 16. When casting, the open metal vessel 1a, 1c may serve as a hot-holding, ladling and melting furnace and the closed metal vessel 1b, 1d may serve as a transport receptacle, all described operational criteria being met by exchanging the furnace cover or removing it and using the open and closed metal vessel 1a, 1b, 1d.